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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,633

09/08/2003

Gary Bann

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BAKER & MCKENZIE
PATENT DEPARTMENT
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EXAMINER

WEST, LEWIS G

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,633

Applicant(s)

BANN, GARY

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,14-18,25-32 and 34-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-10 and 15-18 is/are allowed.
- 6) ☒ Claim(s) 25-32 and 34-42 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Response to Arguments

Applicant's arguments with respect to claims 25-32 and 34-42 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 14 depends from cancelled claim 11, and therefore does not further limit a parent claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-32, 34-38 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chieu (US 5,995,019) in view of Ovard (US 6,356,764).

Regarding claim 25, Chieu discloses an RFID interrogator system, comprising: an plurality of antennas configured to transmit and receive signals; and an amplifier switch block coupled with the plurality of antennas (Col. 8 lines 20-35), each of the plurality of amplifier

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switch blocks comprising: an amplifier configured to amplify a transmit signal; and an energy director coupled with the some of the plurality of antennas and the amplifier, the energy director configured to receive the amplified transmit signal from the amplifier and send the amplified transmit signal to the antennas, and to receive a receive signal from the antennas and direct the receive signal to a receive path. (Col. 5 line 24-Col. 6 line 29) Chieu does not expressly disclose multiple amplifier switch blocks, each containing a transmitter. Ovard discloses a system where multiple transceiver/switch block configurations are used in an RFID interrogator system. (Col. 4 lines 27-58, Figure 1) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multiple switch blocks with transmitter in order to extend the coverage of the system. Further using the amplifier switch block of Chieu multiple times in a system would only constitute a duplication of parts, which is not patentably distinct.

Regarding claim 26, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the plurality of antennas transmit signals to, and receives signals from, an RFID tag. (Chieu Col. 5 lines 1-9)

Regarding claim 27, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the energy director comprises a director at the input of the amplifier, and a director at the output of the amplifier. (Chieu Fig. 4)

Regarding claim 28, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 27, wherein the directors are circulators. (Chieu Col. 6 lines 19-28)

Regarding claim 29, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 27, wherein the directors are directional couplers. (Chieu Col. 6 lines 19-28)

Regarding claim 30, the combination of Chieu and Ovard discloses an RFID interrogator system wherein the amplifier is a variable gain amplifier (VGA). (Col. 12 lines 16-24) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a VGA in order to aid in maintain relatively stable power levels in the amplifier and promote linearity.

Regarding claim 31, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein each of the plurality of amplifier switch blocks further comprises a feedback loop coupled with the output of the amplifier, the feedback loop configured to sense the output energy from the amplifier and control the amplifier gain in response to the sensed output energy. (Col. 12 lines 14-43)

Regarding claim 32, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 31, wherein the feedback loop maintains the transmit signal energy at or below a certain level. (Col. 12 lines 44-52)

Regarding claim 34, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the energy director is coupled with a RF transceiver, configured to process the received signal. (Chieu Fig .4)

Regarding claim 35, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 34, wherein the energy director is configured to direct the receive signal around the amplifier and to the RF transceiver. (Chieu Col. 5 lines 62-65)

Regarding claim 36, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 33, wherein the energy director is configured to direct the transmit signal from

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the RF transceiver to the amplifier, and from the amplifier to the antenna. (Chieu Col. 4 line 64-Col. 5 line 1)

Regarding claim 37, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 33, wherein the RF transceiver is configured to send the receive signal to a decoder. (Chieu Col. 6 line 11-18)

Regarding claim 38, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the energy director is coupled with a switch, the switch configured to direct the transmit signal to one of the plurality of antennas. (Chieu Col. 9 lines 1-16)

Regarding claim 40, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the transmit signal is transmitted to an RFID tag. (Chieu Col. 5 lines 1-9)

Regarding claim 41, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, wherein the received signal contains data from the RFID tag. (Chieu Col. 5 lines 1-9)

Regarding claim 42, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 31, wherein the feedback loop includes an energy coupler, a rectifier, and a power-leveling network. (Col. 12 lines 14-43)

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chieu (US 5,995,019) in view of Ovard and further in view of Lastinger (US 6,621,410)

Regarding claim 39, the combination of Chieu and Ovard discloses the RFID interrogator system of claim 25, which is switchably connectable to multiple antennas, but does not expressly

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disclose the energy director coupled to a plurality of switches. Lastinger discloses a system wherein the energy director (216) is coupled with a plurality of switches (222, 226), each of the plurality of switches configured to direct the transmit signal to one or more of a plurality of antennas. (Figure 2 Col. 8 lines 8-27) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a plurality of switches to connect one or more antennas in order to adaptively change the response pattern of the antenna array to more efficiently locate tags.

Allowable Subject Matter

Claims 1, 2, 4-10 and 15-18 are allowable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quochien B. Vuong can be reached on 571-272-7902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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 11/3/05

QUOCHIEN B. VUONG
PRIMARY EXAMINER